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## Who is Pulling the Strings?

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### Abstract:

Baumert and colleagues argued that research on between- and within-individual differences and expression of personality processes in context should be integrated. We applaud this effort and their focus on developmental processes but felt that their descriptions remained too unspecific. This comment highlights six issues that may contribute to a fruitful debate of future personality research: (a) induction time, (b) co-development of disorder states, (c) theory testing, (d) non-ergodicity and inferences at the within-individual level, (e) development as a complex dynamic system and (f) integration of literatures from neighboring scientific disciplines.

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In response to Baumert et al. (2017). Integrating Personality Structure, Personality Process, and Personality Development. European Journal of Personality, 2017, 31, 5, 503-528

Baumert and colleagues provided an informative and thoughtful review of the cognitive personality literature. However, after reading we remain somewhat worried about the implications of their review for theory development and research. The authors plea to integrate (a) the structure of between-person differences (trait-covariation) with (b) individual differences in personality processes and (c) differences in personality expression in different contexts and social roles (which they described as “situational affordances and regularities” on pages 504 and 506). However, this plea shall not spark much debate. Cattell’s (1946) data box (see pages 507 and 516) was meant to integrate associations between people, variables, and occasions across time (i.e., developmental processes), which is a convention for almost 70 years. Cattell believed that “source traits” underlie the observable “surface” behaviors in specific situations (often described as personality). Moreover, Cattell pointed out that research should reveal how different levels of organization relate to each another (cf. “causal and functional relations” on page 517). This makes the first part of Baumert and colleagues’ article feel a bit like good old wine in new bottles.

In this comment, we want to point out six suggestions which we consider to be important for future research. First, in part I of their article when focusing on developmental processes, Baumert and colleagues remain remarkably unspecific about the underlying mechanisms (*how*) and their timing (*when*), or *what* differentiates states from traits (e.g., pages 504, 508, 515, and 517); while such definitions are essential to describe why and when personalities change (e.g., Ormel et al., 2012, 2017; Jeronimus et al., 2014). Researchers have to choose the optimal time interval for data collection to be able to reveal the timescale of the process under investigation (Dorman et al., 2015, Luhmann et al., 2014; Riese et al., 2014).

Second, there was no discussion of the co-development of general personality differences and specific disorder states (see Durbin & Hicks, 2014). Impairments in personality functioning are nowadays a key part of psychiatric diagnostics (DSM-5, APA, 2013), and much can be learned about personality processes from disorder states (e.g., depression, dementia). Also the feasibility of the treatment of personality (Roberts et al., 2017) to influence downstream consequences of personality vulnerabilities suggests a prominent role for personality in mental health care practices (Caspi et al., 2016; Jeronimus et al., 2016).

Third, the authors of the article stipulate that information processing patterns such as selective perception, attention, interpretation, and memory recall, are likely to be trait specific

(Part II). This may cause people with different personality profiles to react in different ways in different situations, and to select themselves into personalized developmental niches. Although interesting and of major importance, their review does not lead to new insights into *why* this is the case, or how this should be investigated. To our opinion the next step forward would be to first establish theories about personality developmental processes, followed by an exploration of how within-subject patterns can differ, and which processes work for whom.

Fourth, Baumert and colleagues acknowledge (page 507) that population level personality processes (Big Five) and individual level processes are likely to be non-ergodic (Molenaar, 2004). However, they missed this opportunity to claim that personality researchers should *prove* ergodicity before they make inferences from the between- to the within-subject level (e.g., Fisher et al., submitted). Moreover, causal inferences at the within-individual level require experimental manipulations in which occasions are randomly assigned to different experimental conditions (outside of the lab) to surpass prediction and description (Hamaker & Wichers, 2017).

Fifth, personality is nowadays often framed as a “complex dynamic system in which higher-order trait structures emerge from complex causal processes” (see pages 505 and 509). Alas, their article does not explain how this emergence occurs, or how these self-organizing personality processes should be tested. Their dynamic system theory language suggests that personality traits may be understood as attractor states. Moreover, developmental trajectories are almost never linear—but rather irregular, with fluctuations followed by periods of stability—which also favours the implementation of dynamic system approaches (cf. De Ruiter et al., 2017). Personality systems develop over time in mutual accommodation with changing environments that are characterized by complex interactions within and between individuals—and should be studied as such. Similar phenomena are studied and discussed in psychiatry (e.g., Kendler et al., 2011; Wichers et al., 2015; Kotov et al., 2017).

Sixth, to establish progression in the field, personality psychologists could further enrich our discussions with literatures from related fields. Sociology can provide us with the Social Production Function theory, for example, to explain behaviors as investments to reach desired end states (such as subjective well-being), which could be easily incorporated into the motivational personality literature (Ormel et al., 2017). Capabilities theory could help to objectify the “affordances” (mentioned at pages 504 and 506) by assessing the substantive *opportunities* people have to achieve their goals (e.g., Nussbaum, 2004; Jeronimus et al.,

submitted). Behavioral ecologists theorized on niche selection—which Baumert and colleagues assume to underlie the stabilization of traits with age (on page 513)—which may propel our emerging understanding of motivation and selective investment to reach desired end states (e.g., Wolf & Weising, 2012; Reale et al., 2007; Shackman et al., 2016). Baumert and colleagues largely excluded biosocial-evolutionary perspectives, even though these approaches may be most likely to yield a rationale for the observed spectrum of personality processes and differences. After all, Galton’s (1884) sedimentation hypothesis (which holds that the structure of personality can be found in natural language) is an evolutionary approach par example, which catapulted personality theory out of centuries of stasis (Dumont, 2010). Life-history theory may help us to understand normative development of personality (as outlined on page 514) and age-related changes in reward structures (Wrzus et al., 2015). Given the prominence of this article and the list of esteemed authors, we hope for a fruitful debate in which the points raised above could contribute meaningfully.

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